

CITATION COMMENTS

B Y E U G E N E G A R F I E L D

ISI's founder discusses practical applications of citation data for information retrieval, analysis of the journal literature, and evaluation and assessments of research performance. His commentary appears each month in these pages.

The ISI® Electronic library: Project Goals and Preliminary Issues

Last August, the Institute for Scientific Information® (ISI®) and International Business Machines (IBM) announced plans to develop a prototype for an electronic document storage management and distribution system for the ISI Electronic Library Pilot Project. The project is designed to test the many variables relating to the electronic distribution of full images of over 1,300 life science journals.

I remember when the idea of universal real-time access to the literature was still closer to science fiction than reality. In the first essay I ever published in *Current Contents*®, in 1962,¹ I referred to a paper written as the first Grolier Society Fellow at Columbia University in 1954. At that time, I suggested 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."² I used the term "library system for the year 2045!" Now, after 40 years, it would appear that this goal will be reached 50 years earlier than I and others had anticipated.

Introduction

The structure of the project and the timeline for its development hinge on

the issues that are being evaluated in the early stages of the project. As it stands, the test model covers 1,350 journals contained in the Life Sciences edition of ISI's *Current Contents*. Input from the library community and from publishers will help to clarify issues that are key to the commercial success of the project. Some of the issues under study include copyright, intellectual property, pricing, and usage patterns.

The copyright issues that apply now to printed material may or may not hold true for electronically transmitted information. As the prototype is being built and these issues are being considered, ISI and IBM will construct a viable working system based on an economic model that is acceptable to the library community and to publishers.

Electronic Journals

Basic features of the system include all bibliographic data, English-language author abstracts, and full tables of contents displays. Another attractive feature is the actual presentation of the electronic journal. Full image electronic journals will be available to users of the ISI Electronic Library Pilot Project, depending on the extent of publisher permissions.

Prototype/Study

The prototype will be ready for testing by mid-1995, and its performance in the field will help to shed light on practical applications such as data access, retrieval, and usage.

Usage patterns will be closely monitored during the prototype stage. Data use will be metered, and that usage information will be analyzed. Information about use by different groups—each with unique information needs—will help to determine market acceptance.

Servers

One of the unique features of the prototype is the client/server design. This allows the users to access information on personal computers that run on most operating systems (e.g., DOS/Windows, Macintosh, and Unix) that are connected by LAN software. The interface that will be used during the test is Lotus Notes®. The information is extracted from the centralized ISI® server and distributed to the subscribing site via CD-ROM or broadband communication. The Electronic Library has browse and search capabilities and provides relevancy ranking. The system allows the user to navigate the article and permits scaling of images up and down.

An advantage of this design is that it allows customization. The customer chooses particular Life Sciences journals to which to subscribe in electronic form. The basic subscription includes bibliographic and abstract searching of the entire Life Sciences collection, and image retrieval is available as an option for any of the electronic journals on the customer's subscription list. The

customization depends on publisher permissions and the customer's needs.

Conclusions

ISI's long-range goal is to create an information gateway that will link the user to international research literature anywhere, anytime, anyplace. Once again, this is not too far afield from my vision of the ideal library. Published information is made all the more valuable by making it universally accessible, and real-time accessibility is the goal of ISI's Electronic Library Pilot Project.

As the project unfolds, ISI will keep *Current Contents*® readers informed of its progress. It is difficult to make accurate forecasts about the dramatic technological changes taking place today. Everyone is preoccupied with the Information Superhighway and dire forecasts are envisioned for journals. However, it is my expectation that these new developments will enhance the use of the primary literature in unforeseen ways so that the printed journal and its electronic counterparts, on-line and in CD-ROM, will coexist for many years to come. Until then, it is our mission to accelerate the delivery of information to the researcher, so as to make real-time use of the literature a reality.

Eugene Garfield, Ph.D.
Chairman Emeritus

References

1. **Garfield E.** The ideal library—The Informatorium (June 19, 1962). *Essays of an Information Scientist*. Philadelphia: ISI Press®, 1977, p. 1.
2. The informatorium. Grolier Society, Columbia University, 1954.

Previous Essays in the 1994-95 Series

- The concept of citation indexing: a unique and innovative tool for navigating the research literature. *Current Contents*® (1):3-5, 3 January 1994.
- Where was this paper cited? *Current Contents* (5):3-5, 31 January 1994.