

# The Portal as Information Broker

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## INTRODUCTION

The term *information broker* is widely used in the area of library and information science to describe a middle agent who deals in information as a commodity, enabling customers to gain more efficient access to quality data. The role of this middle agent is described as “information retrieval and information organisation” (Rugge & Glossbrenner, 1995). The role of the broker is to bring additional organisation to the market by lowering search costs (Palmer & Lindemann, 2003).

The *Index of Information Systems Journals* (Lamp, 2004) is a Web portal that has been providing an information broker service since 1994. The *Index* was originally seen as a resource that was of interest to a small research group, but is now used worldwide as a respected source of information regarding information systems (IS) journals. The growth of the *Index* user base and content has resulted in the provision of services not originally envisioned, as the aggregation of information in the *Index* became a resource in itself, rather than a means of accessing a resource.

## BACKGROUND

The *Index* grew out of discussions in the Information Systems Research Group (ISRG) at the University of Tasmania in 1994. It came from the need of new IS researchers to identify journals for publication. John Lamp undertook to put together information on such journals and decided to use the, then, new technology of the World Wide Web to allow access to this information generally within the ISRG, or beyond, if there was interest. In 2006, the *Index* contains information on over 500 IS journals, and is accessed over 10,000 times per month by Web users all over the world.

Initially, the focus of the *Index* was on providing information for authors. A short description of the aims and scope of each journal was provided and, where these could be identified, Web links to primary Web sites containing further information and instructions for authors were provided. The *Index* became a Web portal to the primary journal Web sites. Applegate, Austin, and McFarlan (2003, p. 53) distinguish between horizontal, vertical, and affinity portals. On that classification, the *Index* would be classed as an affinity portal, as it provides specialist information to a specific market segment.

## THE NETWORK INFORMATION BROKER

A network information broker is seen as providing a number of services (Keen & Lamp, 1997):

- Facilitation of the delivery of goods (i.e., information)
- Value enhancement of the information provided
- Adherence to a code of conduct, improving honesty, and reducing the chaos of network services
- Acting as a guarantor of standards of information integrity and quality of information services
- Representation of the supplier to the customer and vice versa
- Provision of new information by integrating sources from many suppliers
- Acting as a revenue gatherer for suppliers
- Advertisement of suppliers' information and services

The *Index* provides services in a number of areas covered by these criteria, as detailed.

### Facilitation of Delivery

Thirty percent of IS journal titles come from four publishers: Elsevier, Springer, Inderscience, and IGI Global. The remaining titles, numbering over 300, include highly regarded titles, such as *MIS Quarterly* and the ACM and IEEE journals. These journals are published by other commercial organisations, professional organisations, or higher education institutions. The *Index* facilitates access by providing a single central point from which to directly access IS journal publication information. Without the *Index*, over 220 Web servers would have to be located and accessed to obtain the information held on the *Index*.

### Value Enhancement

The single greatest enhancement that the *Index* offers to its user community is the aggregation of information into a central portal from which the primary Web sites can be directly accessed. The *Index* contains a summary of the information held on the primary Web sites. This information is presented in a uniform format that facilitates comparison of individual entries. It is also possible to conduct searches on this information, and this facility has been upgraded several

times. A research project is currently underway (Lamp & Milton, 2003, 2004) to develop a categorisation scheme to be applied to IS journals. The adoption of the categorisation scheme is expected to significantly enhance the value of the *Index* by enabling more precise searches for particular types of journals.

## Reduction of Chaos

The *Index* data is reviewed six monthly to ensure that the data in the *Index* is current. All data, including recognition by authorities, current publisher, and Web links into the primary Web sites are checked. A consistently applied editorial policy ensures that the information in the *Index* delivers a high degree of comparability between journals.

The dynamic nature of the World Wide Web, and consequent changes in Web links, is a major source of updates. In a survey of results reported in the literature and through monitoring a set of Web links over an extended period, Koehler (2004) observed Web link failure rates of up to 39% over a 12-month period. In the domain covered by the *Index*, a number of factors have been observed that contribute to Web link failure. The major causes are changes to publishers, through mergers of publishing houses and restructuring of primary Web sites. Most commercial publishers have restructured their Web sites since the *Index* was established in 1994 in order to take advantage of maturing Web technology to provide enhanced features, such as online submission and monitoring of articles, online subscription, and purchase of articles.

These changes are transparent to *Index* users and in most cases, the *Index* can be relied upon to have current information that will take them directly to the primary Web sites.

## Guarantor of Standards

The *Index* is now widely known and respected within the IS community and amongst journal publishers. Inclusion on the *Index* is being increasingly cited as significant by journal editors and publishers. Increasingly, publishers are in direct and ongoing contact with the *Index* to ensure that their titles are correctly recorded and that updates are made in a timely fashion.

## Provision of New Information by Integrating Sources

The data compiled for the *Index* is becoming a source of information in itself through the generation of information not originally envisaged. Already it has been used to provide data on the growth in IS journal titles, and to analyse trends in recognition of IS journals (Lamp, 2006).

Future areas of investigation that will generate new information include:

- searching activities of *Index* users,
- popularity of IS journals, and
- long-term analysis of the change in IS journal Web links.

Without the *Index*, these projects would require major data discovery and collection. The long-term studies of Web links would be impractical, if not impossible, as it is unlikely that publishers would have archival records of these.

The issues of representation, revenue gathering, and advertising are not significant to the *Index*. It obviously represents the IS journals to the users of the *Index*, but the nonprofit nature of the *Index* makes revenue gathering and advertising of little relevance.

## THE DEVELOPMENT OF THE PORTAL

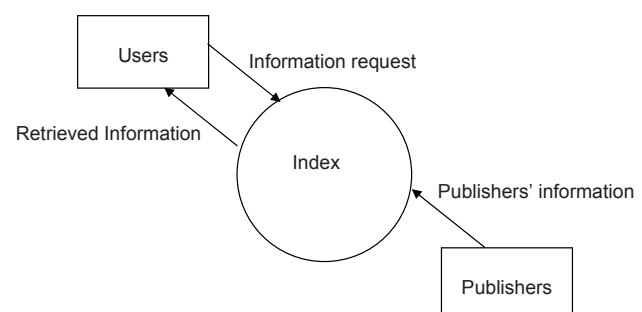
In the following sections, the development of the portal will be described, firstly from a systems view, and then describing the change and impact of technology used.

### The Systems View

The original concept (Figure 1) for the *Index* was a simple register of journals that publish IS research. The publishers' Web sites were used as a source of information, which was presented as an alphabetical list on the *Index*. A paragraph based on the journal aims and scope described the journal and whether it was a paper- or electronic-based journal. Links were made available to the entry on the publishers' Web site.

Initial feedback from users requested the inclusion of information on whether an individual journal was recognised by the Australian Government for their research data collection. This annual data collection exercise is a factor in allocation of research funding to higher education institu-

*Figure 1. Original conceptual model for the Index*



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