THE PROCESS OF SCHOLARLY COMMUNICATION: THE STATE OF THE ART - A COMMERCIAL PUBLISHER'S PERSPECTIVE

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The primary journal article is a minor element in the process of scholarly communication. Current Science Group is developing a WWW-based system of communication which reflects the true nature of scholarly interaction.

Technology will completely change the world of scholarly communication. However, before trying to work out which technology should be applied, it is really important to understand how scholars, and more particularly scientists, communicate today.

The information industry, librarians, publishers, subscription agents etc, has for the last 30 years focused almost exclusively on the primary research paper as the principal means of inter-scientist communication. This is not surprising because primary scientific journals are the main users of library budgets and the main generators of publishing and agency profits. However, the scientist does not see it quite like that.

A researcher, for instance, does most of his communication with colleagues using the established mouth technology (sometimes known as speech) and quite often this takes place in the pub or the coffee lounge. If the colleague is not in the laboratory a post-it is attached to the desk. To talk to his (or her) boss the researcher uses speech but also probably the internal telephone, e-mail and occasionally a dinner. Sometimes the researcher needs to communicate with the two or three other laboratories in the country which are doing similar work. In this case faxes, telephones, e-mails, seminars (facilitated by the latest road or rail technology) and meetings are the main channels of communication. Very occasionally the researcher may find the funds to go international and attend a big conference (using mainly aviation technology) to meet colleagues from around the world. Then, on completion of the research project, when he wishes to communicate the results, preprints, speeches, poster sessions and finally a primary journal article may be published.

The point of all this is that the primary journal article is a really tiny part of the scientific communication process and the new technologies, if they are to be really successful, must reflect the current realities.

Hence, Current Science Group has been working on the development of professional communities on the World Wide,
Web where members of a scholarly community (eg: http://biomednet.com) can interact with each other as well as obtain information quickly and cheaply. The main areas of interaction at present are: searching for jobs or for people to fill jobs; searching for people working in the same field; sharing information through electronic meeting rooms; hearing gossip; booking planes; buying kit for the laboratory; organising or attending conferences, and finally, searching and browsing in the library where databases and books can be as important as primary articles. Nobody can be sure whether this is the right approach but it is trying to mirror more accurately the real process of scholarly communication rather than be a subset of journal publishing on which the information industry has traditionally focused.

There can be little doubt that the Web is going to change the landscape of the information industry radically and many of the existing links in the information chain may be eliminated or altered beyond recognition. However, the winners will be those who add value cost-effectively. In other words publishers who produce journals that nobody reads, at prices that nobody can afford, with the lowest possible standards of editorial, production and marketing, will no longer be the most profitable. Librarians who see their task as to run a perfect archive where the only problem is that readers wish to disturb the shelves, will probably find the readers reluctant to continue funding them. Agents, whose sole function is to cream off a few percentage points in exchange for acting as a postal sorting office, will go bankrupt.

Fortunately nobody reading this article falls into any of these categories - so we can all rest easily in our beds!