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Trials and Tribulations? Editing *Information Research*, an Open Access Electronic Journal

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Information Research: an international electronic journal

Introduction

The title of this piece is tongue-in-cheek, since the process of developing Information Research (**http://InformationR.net/ir/**) has been almost totally free of 'trials and tribulations', from its inception as the electronic version of a departmental newsletter, to its present status as a fully peer-reviewed scholarly journal with a world-wide readership.

The journal was first published in 1995, at the beginning of the revolution in information provision over the Web and its development since then has mirrored the rise and continued rise of the electronic journal as a serious medium of scientific communication.

That rise is indicated by the size of the archive at *NewJour*, a Web-site that lists new electronic journals and from which an e-mail service of announcements is run. NewJour began life in 1993 as part of the Association of Research Libraries directory of electronic resources. In early 1995 there were 250 items in the archive, there are now (October 2005) 16,453 items. Not all of these are serious, academic journals: NewJour lists newsletters, popular magazines, trade journals and, indeed, any item that can be described as a periodical publication. A similar story could be told by examining the *Directory of Open Access Journals (DOAJ)*, which, at its launch

included 350 titles and now (11 November 2005) has 1,904 quality controlled (editor or peer-reviewed) journals.

Information Research is now in its eleventh year of publication. It had its origins in a small newsletter, *CRUS News*, which reported on the work of the Centre for Research in User Studies. *CRUS News* came to a natural end on the cessation of the Centre's contract and it was decided to expand the role of *CRUS News* and to use it (under the title *Information Research News*) to publish working papers on research in the Department.

IRN was published from 1990 to 1997 in paper form and, from April 1995 (under the title *Information Research*), also in electronic form. During 1994/95 it became evident that continuing to publish *IRN* on paper did not make economic sense: when all costs were included, the income from the small number of subscriptions barely covered production costs, and in the course of 1995 it became evident that the electronic version, *Information Research*, was reaching many more readers than the paper version had ever done and, therefore, in 1997 the decision was taken to publish only the electronic version.

The aims and functions of *Information Research*

Information Research was originally designed to publish working papers, rather than fully elaborated papers that could be exposed to referees. However, from the response to the papers, in terms of the usage data as well as e-mail messages, it became evident that the journal was accepted as a 'normal' academic journal. Over the first three years, therefore, the aims of the journal changed from publishing mainly working papers based on research carried out in the Department of Information Studies at the University of Sheffield, to publishing working papers, invited papers (known as 'guest papers') from outside the Department, and then (from 1998), fully refereed papers. We now publish research papers of a quality that would be acceptable in a print journal, using referees who serve in the same role for other leading journals in the field, some of whom are members of the Editorial Board.

Production and use

The production process

The production process of *Information Research* is quite straightforward: submissions are received as e-mail attachments and, if thought within the scope of the journal, are sent either directly to referees or to one or other of the regional editors. Referees' reports (on a standard response sheet) are received and returned to the author by e-mail, with the decision whether to publish, to publish with revisions (which may or may not require re-

submission), or to reject. Currently, approximately 30% of submissions eventually make publication.

Authors are asked to submit their final version in HTML using a template available on the journal site. This usually means that some HTML editing is needed before the paper can be published. Generally, however, most of the preparation has been done by the author.

Economics

In its original form, the economics of *Information Research* were relatively trivial: the Department used the University's Web server and, therefore, no capital costs were involved, one person (the author) converted original papers into HTML format and passed them to the Department's Computer Manager for uploading to the Web-site. In all, the work-load was probably not more than two person-days a month at a cost (if it was to be charged) of, say, £150.00. Since the Web-site was run and maintained by the University's central computer services, there were no readily identifiable maintenance costs separately attributable to Information Research. Material costs were similarly insignificant, since the papers were already in electronic form and all editing and conversion was done on the electronic versions.

Editorial work of one kind or another is generally accepted as falling within the normal work of an academic member of staff in a British university, and in many others around the world. We are encouraged to serve on Editorial Boards, to act as referees, and to serve as Editors. These tasks are seen as part of the involvement in research. In a real sense, universities subsidise the activities of publishers through the involvement of staff members. It would seem curious if any single university was to seek to prevent similar involvement in electronic journal production from within the institution itself! For both commercial publishers and for the institution itself, this kind of involvement is seen as "cost-free" by the university because it adds to the research reputation of the institution.

The production of a *free* electronic journal has certain benefits in terms of costs: it is not necessary to keep records of subscribers, no accounts need to be kept or audited, no letters have to be sent to subscribers urging them to renew, we pay no commission to other businesses to act as agents, we have no offices within which all of these activities are carried out and employ no staff to perform them. These costs are quite significant for both paper and electronic subscription journals: for example, Fisher in a paper to the Conference on Scholarly Communication and Technology in 1997, provided a comparison of the overhead costs associated with an 'issue' of the e-journal *Chicago Journal of Theoretical Computer*

Science (a subscription journal) with those of an issue of the paper journal *Neural Computation*.

She concluded that the overhead costs of the e-journal (per issue) were more than 1,000% higher than the print journal. However, she goes on to note that this disparity is largely a function of the amount of content published by CJTCS in the 18 months over which overhead was calculated, compared with the distribution over 12 issues of the print journal, NC. In other words, like was not being compared with like. In addition, Fisher counted the costs of the Digital Projects Laboratory, both staff and hardware, into the overhead costs of CJTCS, but did not count in similar technology costs (e.g., machine maintenance of printers) into the overheads of *Neural Computation*. If these costs had been included, as well as other overheads not found in e-journals (e.g., distribution), the contrast would have been much less.

This comparison suggests that the key to overhead costs is whether or not the journal is freely distributed. If you do not have subscribers, but only readers, a significant overhead costs is clearly removed: in the case of CJTCS these were calculated at $31,050.

In the case of *Information Research*, there are no direct management costs, since I am providing my time freely. However, we can ask what the editorial costs would be if I was working for a publisher. Fortunately, I have some guidance on this as I was offered £2,500 a year to serve as Editor by a publisher who wished to take over the journal. Let us assume that I spend two days a week over the course of the year – less holiday time – in my Editorial role. This means that the publisher values my time at £20 (€30) a day (i.e., excluding weekends and four weeks' holiday), rather than the £75 an hour the University would have charged for allocating my costs to other projects! There are four issues a year, so the editorial costs of each issue would amount to £625 (€925). In volume 10 of the journal we published 41 papers, giving a per paper management cost of £61. Scholarly papers are generally between 15 and 20 printed pages: if we assume the lower of these numbers, the overhead cost per page would be £4.00 or €5.9, which happens to be about half the cost of the print journal referred to by Fisher.

As in the case of print journals, the costs of referees, Editorial Board members, book reviewers, etc., are not met by me as publisher, but by the employing institutions, since these persons provide their time freely.

In reality, therefore, as none of these costs are actually charged, the journal costs no one anything to produce.

Usage

2005-Rank	Domain	% 2005
1.	United States	17.7
2.	United Kingdom	14.6
3.	Australia	4.5
4.	Canada	3.5
5.	US Commercial	2.9
6.	US Educational	2.7
7.	Malaysia	2.6
8.	India	2.2
9.	Network	2.2
10.	Sweden	2.0
11.	Spain	1.9
12.	China	1.8
	Total	58.6

Table 1

Information Research is a heavily 'hit' site: the counter statistics of usage since 1st April 1998, show (at 8th November 2005) that the top page of the journal has had 250,651 hits - or approximately 2,700 a month. This, of course, is not the true total - since users go directly to specific papers, as a result of search-engine hits and back to the same papers to re-read or pick up references, or whatever. Users come from 178 Internet domains, plus 8.8% from unknown domains. The highest-using domains are shown in Table 1.

The fact that these twelve domains cover almost 60% of usage and that 8.8% is from "Unknown" means that the remaining domains have very small usage.

Hits are a relatively crude way of assessing usage, but one of the few ways we have when producing electronic journals. We also suggest, however, that readers should register to receive information on the timing and contents of new issues and there are currently approximately 3,000 registered users. Seventy percent of the registered readers came from 13 countries out of the total of 104 (twice as many countries as in 1998): these countries are shown in table 2:

USA	500	18.63
United Kingdom	439	16.36

Australia	231	8.61
Canada	142	5.29
India	115	4.28
Netherlands	75	2.79
Malaysia	72	2.68
China	70	2.61
South Africa	56	2.09
Indonesia	48	1.79
Iran	46	1.71
Brazil	45	1.68
Finland	42	1.56

Table 2

The future of *Information Research*

The main issue to be faced by the publisher of a journal such as Information Research is how to ensure its continuation, dependant, as it has been on one person. Recently, the situation has changed in two ways: first, I have recruited three volunteer regional editors for North American, the Luso-Hispanic countries, and the 'rest of the world' outside these areas and Europe – i.e., Africa, the Middle East and the Far East. These regional editors manage the refereeing process, thereby relieving the Editor in Chief of some of the work. Secondly, the physical site has been moved to the University of Lund Libraries and will be managed by the team that already manages the Directory of Open Access Journals. This will enable some technical development to take place, which will reduce the Editor-in-Chief's work and enable the automatic production of the author and subject indexes.

The collaborative model is a very interesting one from the point of view of the scholarly journal because it distributes whatever workload there is over several institutions and allows for more institutions to join the consortium if the workload grows. To a degree, it is also the model employed by the print publishers, but the fact that much work is undertaken free of charge at the cost of employing institutions is not often publicized.

Conclusion - the future of the free scholarly journal

The growth of free electronic journals depends upon a number of factors:

a. the extent to which researchers in new and/or multidisciplinary fields find it difficult to publish in core

journals and difficult to persuade commercial publishers of the existence of a big enough market for a print journal;

b. whether speed of publication and world-wide exposure will outweigh the perceived value of the citation of papers in print journals;

c. how quickly electronic journals come to be covered by the citation indexes;

d. how much longer academic institutions and governments will be prepared to tolerate the present uneconomic situation in which they are, effectively, subsidising the profits of commercial publishers;

e. whether the scientific societies will find new sources of income through gaining sponsorship of free electronic journals to replace the income they get by contracting commercial publishers to produce their journals.

All of these are big questions and papers could be written on each of them, but I hope that the logic and economics of the free publication of scholarly research will be overwhelming and that we shall see a return to the ethos of the free interchange of knowledge in a genuine community of scholars. The collaborative model that is now emerging in Information Research offers a model for institutions world wide and it is becoming more and more obvious that we no longer need to depend upon the technology that has served research well for the past 350 years, and the new technology offers not only speedy publication but multimedia publication, which is very attractive for many fields. The new technology will give rise to new models of the process of scientific communication and, for academic institutions, new models of the research dissemination activities of their staff members. When all the circumstances are right, the trickle of new, free e-journals will become a flood - and will cause new problems for librarians and users.

Note: an earlier and somewhat expanded version of this paper, with which comparisons can be made, can be found at **http://informationr.net/tdw/publ/papers/isipap98.html**

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