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Technology has introduced the scientist to super-fast library service. It has not yet fully introduced him to the cost of that technology. The same man who would not hesitate to order a $\$ \mathbf{2 0 , 0 0 0}$ electron microscope often resents a $\$ 2.50$ charge for a tear sheet because he remembers the reprint he can often obtain free. He does not remember that a library is a giant expensive machine which must be maintained in order to satisfy his information requirements quickly. Recently, J.D. Nelson ${ }^{1}$ did an interesting analysis on the economics of reprints. His conclusion was that reprints should be abolished to remove the burden of cost from the author. As I pointed out before ${ }^{2}$, the "free" reprint is anything but free. Nelson, and Potter ${ }^{3}$ before him, are but a few of the scientists who realize the true costs of the reprint system which must include not only the reprints distributed but also those that remain on the shelf unused. Similarly, the cost of a tear sheet must reflect the overhead cost for the vast majority of articles which are never ordered. ISI ${ }^{\text {® }}$ now receives over 500,000 different journal articles per year in about 60,000 bound joumal issues. Furthermore, as many 'as eight copies of certain journals are received. However, most of these are never ordered by OATS customers.

Whenever a scientist visits ISI he invariably asks what we do about an article which is so popular that we cannot supply tear sheets. He falsely assumes that we receive orders for dozens of copies of each article. The simplest
calculation would show that ISI requires less than one journal issue to supply $90 \%$ of OATS requests. Naturally certain journals are requested more than others. In the entire history of our OATS service only one article was requested eight times-and that was published in a Chinese journal not readily available in many libraries.

To supply even a one-page article from a journal issue, that journal must be completely processed-it must be ordered, accessioned, cataloged and stored. When an OATS order is received, the journal issue must be retrieved and the article literally tom from the issueand then the article must be sent the same day by first class or air-mail to the always impatient reader. To speed service we operate a 24 -hour telephone Hot Line. We have also recently introduced Telex service.

As another non-trivial item, it is important to note that collection of fees for such special service often entails additional processing costs. How can one justify invoicing a government agency or university for a $\$ 2.50$ tear sheet? The cost of such procedures must be included in the general overhead for such a service.

For almost ten years, ISI has operated its Original Article Tear Sheet (OATS) service. After ten years without a price increase we recently raised the price. The way in which this was done was to reduce the maximum number of pages allowed from 20 to 10 . In addition, a 50 cent service charge for postage and handling was added.

To many an acsdemician, any price for a tear sheet (reprint) may seem ilike an affront. If thst same person is getring free Xerox service from his library, a charge of $\$ 2.50$ for a ten-page article seems like a lot. A similar charge for a one-page article must seem like robbery.

The recent change in OATS prices appeared to some users as a $100 \%$ increase in price because we reduced the number of pages from 20 to 10 . This is not true because the average number of pages per article is less than 10 pages. The average price increase was in fact about $20 \%$.

The copyright and reprint problem is sensitive and-complex in itself. The economics of it are also liktle understood because costs of providing "free" copies of papers are concealed and the cost of reasonably complete libraries are also hidden. The vast majority of books and
journal items stored in most libraries are, in fact, never consulted or only very rarely. Somebody has to pay these costs and somebody has to provide copies of papers by tear sheets, Xerox or some other method.

Our OATS service may seem expensive at $\$ 2$ for 10 pages plus 50 cents for postage, but think of what it costs us in having an extraordinarily complete and superbly indexed library, and think of what it saves you in not having to maintain this yourself.

1) Nelson, J.D., "Economics of Reprints", Am. J. Dis. Child., 118, 528-30 (1969).
2) Garfield, E., "Is the 'Free Reprint System' Free andinc Ohsolete?", Current Contents of Pharmaco-Medical and Life Sciences, 8(22) 3-4 (June 1, 1965).
3) Potter, V.R., "Regrets to Reprint Requests". Science, 163, 1010 (March 7, 1969).
