

in Africa and Asia, where library facilities are not readily available, a reprint may be the only means by which a research worker can have the relevant material close at hand. Asian and African students are not particularly affluent and can ill afford the cost of reprints.

While I can see the merits in the scheme suggested by Hofmann *et al.*, it does not fully answer the problem. I would suggest a footnote to all papers saying the author will send reprints only to those who write personally, explaining their interests. I, for one, am suspicious of printed request cards.

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The Information Race

I wish to call to the attention of your readers an increasingly widespread practice which I believe to be detrimental to the advancement of science. For lack of a better name, I choose to call it "publication by preprint." A typical example of this practice might occur when a scientist completes a project, writes up his results neatly in the form of a preprint or preliminary report, circulates the results among a small number of his colleagues working in the field, and then allows 1 or 2 or 3 years to elapse before submitting the material to a recognized scientific journal.

Although the desire to inform one's colleagues of new developments rapidly is a commendable one, the practice of letting these preliminary communications usurp the role of the recognized journals is not a commendable one. In fact, this practice systematically isolates younger, unestablished scientists from the mainstream of progress. It encourages stagnation of thought by restricting participation in the scientific dialogue which accompanies any discovery to a select group of individuals whose ideas probably already dominate the field. The communication of scientific information by preprint, progress report, or report at a scientific meeting can in no way substitute for publication in a recognized scientific journal where access to the information is available to all.

To remedy the problem, there are steps which could and should be taken. One of these might be the establishment

of a clearing house which would make preprints accessible to all, as suggested by Moravcsik (*Physics Today*, March 1965). More than likely, however, the ultimate solution must lie with those scientists who now engage in "publication by preprint." Their realization of the dangers of such practices is essential.

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I have before me a reprint-request postcard from a medical department of a Southwest university—or so I gather from the printed form. It is unsigned, the name of the requester is not given even by stamp, and in fact the entire card has been untouched by human hands except for the addressing, presumably by the departmental secretary. From the list of addresses I infer that it is a request for a "reprint" of a paper that has not yet been submitted for publication in regular channels, although the preliminary work on which it is based has been issued as a handsomely printed brochure by the commercial firm with which one of the coauthors is associated.

The most telling argument for this sort of prepublication is that, among workers in the particular area involved, advances will have been made well beyond the information in the paper by the time it could possibly appear in any journal. There are fallacies in the argument, and the value of information for which this may be true is rendered somewhat dubious, but the fact remains that in most instances the rapid dissemination of information can save large chunks of time and minimize duplication of effort. In modern-day "competitive research" the costs are so high that the economic bill for duplication and poor communication can attain fantastic proportions, even though the corresponding scientific and sociologic gain may be minuscule.

Until recently, one could feel justified in writing off as facetious the recurrent suggestion that journal publication in rapidly moving fields might eventually be completely bypassed with an adequate system of cross-indexed titles under which an author merely provided privately reproduced copies of his work upon request. Such a system is only a step from the Documentation Institute idea, in which "publication" consists simply of filing a paper or a body of verifying data with a central

indexing agency, which undertakes the chore of providing copies upon request. Sober reflection indicates that some combination of the two ideas may be the only logical response to the steadily mounting costs of conventional publication and to our decreasing ability to read the journals to which we subscribe. But the one crucial question in all such proposals remains unanswered: What will be the function of the institutional library—if it can survive?

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Fred Griffith Memorial

In an article published in the *Journal of Hygiene* in 1928, the late Fred Griffith described how he had transformed live Type 2 pneumococci into Type 3 by injecting them into a mouse along with dead Type 3 pneumococci. This experiment, the results of which were received with considerable scepticism, was successfully repeated by American workers in O. T. Avery's laboratory at the Rockefeller Institute. A series of papers from this laboratory culminated 16 years later in the demonstration of deoxyribonucleic acid as the transforming principle. This fundamental work proved to be the starting point of a vast field of genetic exploration in which many scientists of different training and background are now engaged. Griffith did not live to see the fruits of his original observation, for he was killed by a bomb in London in 1941. The 25th anniversary of his death will fall next year. To commemorate him, a fund is being raised by some of those who were privileged to know him. Probably many workers in the fields of genetics will not have heard of Griffith or of his great contribution. It is to these, as well as those to whom his name is familiar, that an appeal is being made. In the United States a memorial is already being prepared for Avery, and it seems only fitting that the part Griffith played should not be forgotten. Checks should be made payable to the Griffith Memorial Fund, Westminster Bank, 154 Harley Street, London, W.1, England.

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