

January 21, 1963

Dr. M. M. Kessler  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

Dear Dr. Kessler:

I was most interested to read your report "Concerning the Probability That a Given Paper Will Be Cited". There is no question that such studies are most valuable in giving us more insight into the structure of the scientific literature. I must admit, however, that I was confused and disappointed concerning the summary of your conclusions which I do not believe will be very helpful in conveying a clear understanding of the utility and purposes of a citation index. From the fact, which I would not be prepared to dispute, that a few percent of papers are never again cited, and that the average number of citations per paper is fairly low, you have drawn a conclusion about the limited utility of the citation index procedure which is completely at variance with my own experience in trying to retrieve essential data from the published literature. There are indeed many cases where it would be a most important finding in my evaluation of a piece of work if I could be sure that it had never been cited again. Suppose, for example, that one of my colleagues had reported on the chemical synthesis of an analog of DNA and I had in mind further biological studies with such a material. The very absence of a further citation to such work would be the clearest assurance that here was virgin territory to explore. In many other instances the absence of a citation could furnish the reassurance that further bibliographic investigation was simply likely to be unprofitable and could save many hours of work in trying to chase down less obvious routes to connected articles.

In usual circumstances of use of the citation index the older article is already "known" and the problem is to locate current sources that may cite the older reference. On this basis one should inquire as to the likelihood that one can find a link to the source for which one is searching. We would then find a troublesome category, indeed, those sources which have no references, and these are, I believe, a more vexatious problem than the references which are not again cited by more current sources, itself a useful datum. One cannot of course argue with the conclusion that the greatest values of a citation index would be in conjunction with a well-integrated system. However, I believe that your remarks are more appropriately directed to the expectations of using the bibliographies of leading current papers and review articles as a means of finding older literature than they are in the most important applications of citation indexing.

Sincerely yours,

cc: Dr. B. V. Adkinson  
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