I. Richard Savage, *Bibliography of Nonparametric Statistics*. Harvard University Press, Cambridge, Massachusetts, 1962. $6.50 284 pp.

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This is by all odds the most thorough bibliography I have ever seen of a specific field of knowledge. The basic list consists of some three thousand publications with the usual specifications in alphabetical order by authors. In addition to all the expected items there is a large number of unexpected ones with titles such as: "Influence of VAMA and of depth of rotary hoeing upon infiltration of irrigation water", "Cryptozoa of an Illinois woodland", "Biological clock in the unicorn" (I am going to look that one up in *Science*, **125** p. 874, 1957a), "Effect of stress on palmar prints", "Influence of plastic vat covers on fermentation of cucumbers", "Contribution of nitrogen mustard to the management of Hodgkin's disease", "Age, labor force, and state per capita incomes", "Skull measurements with respect to sexual dimorphism", "Reserpine in conditioned responses in cats", "Significance of vertebral form in snakes", "Effects of leadership style and power upon the inducement of an attitude change", "Iodoacetolt test for cancer", "Body size and number of eggs in diaptomids", "Transposition in the feebleminded", "Battery Additive AD-X2". These are cited to show how diligently and far afield Professor Savage has searched the literature. These particular items contain, of course, applications of nonparametric techniques and the bibliography conveniently provides with each such application reference the name of the nonparametric technique employed in the article.

A beautiful feature of the bibliography is the list of *users* supplied with each item. This is a list of subsequent papers (chronologically) which have referenced the given paper. Thus, when one has found a paper in which he is interested, he has immediately in the *users list* those papers which give later developments of the subject of the paper. Incidentally, this idea is credited to Garfield in *Science* **122** (1955) 108–111, but I recall that C. P. Winsor suggested it at least ten years earlier; he also suggested that the length of the *users list* would be a good first approximation to the worth of paper.

The bibliography also provides with each entry a code letter indicating the general area of nonparametric statistics into which the entry falls.

It may be appropriate in commenting on such a fine piece of work to consider the general information problem in scientific research. This kind of bibliography does not solve the problem for a number of reasons, not the least of which is that few areas of knowledge will be blessed with so dedicated and able a bibliographer as Professor Savage. The general form of this bibliography might very well be a solution if it were in a computer, for then: (1) the *user lists* could be regularly updated as the literature appears, (2) the subject matter codes could be searched out easily, and (3) the applications of a specific technique could be

found easily. In the event this solution were attempted the subject matter classification would have to be much enlarged because the present one is quite coarse.

My own personal prejudice about the general scientific information problem is that each scientific society must take the responsibility for devising (and making official) a rather complete expandable subject matter code, that each author must classify his paper according to the code and that he must formulate a very definitive title for his paper even at the price of using up to fifty or sixty words. With this kind of program, a computerized form of the Savage type of bibliography could supply a good solution to the information problem without demanding the time of professional scientists.