Introduction. Symposium on User Reactions to CAS Data and Bibliographic Services

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Received May 28, 1975

In previous years the Division of Chemical Information has held symposia which were critiques of the then available information services and systems.[1] These symposia have covered a range of information services and have given objective evaluations of the systems' advantages and disadvantages. This symposium differs from the earlier ones in that it is limited to the evaluation of one information service, i.e., Chemical Abstracts Service (CAS). The data and bibliographic services offered by CAS have undergone multiple changes in the recent years. These events prompted this symposium which is devoted to the use and evaluation of the CAS files.

The broad objectives of this symposium were: (1) to survey the services that are currently available from CAS; (2) to establish which services are most useful to the information community; (3) to ascertain which features aid in ensuring that chemical information is accessible to those who have a need for it; and (4) to evaluate the disadvantages which the user in his work environment felt affected his use of these services.

The following papers were organized to provide a broad-based evaluation of CAS, from the use of the printed edition of CA to the on-line bibliographic files. The lead paper from CAS[2] gives background information on what CAS has tried to accomplish in recent years and how they view their changes and the effect on providing information to the ultimate user. The remaining papers attempt to bring out the advantages and disadvantages as well as the cost effectiveness of the various CAS services. It is from these experiences and discussions that it is hoped the user of chemical information will benefit.

LITERATURE CITED

(1) Vasta, B. M., "Introduction. Comparative Evaluations of Existing Chemical Information Services Critique Symposium," *J. Chem. Doc.*, **13**, 23 (1973).

(2) O'Dette, R. E., "CAS Data Base Concept," *J. Chem. Inf. Comput. Sci.*, **15**, 165 (1975).

The CAS Data Base Concept†

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Received June 4, 1975

The evolution of the CAS processing system is summarized, stressing the data base concept. Current publications and services are identified in relation to the data base, and some of the potential for their evolution is noted.

I was asked to introduce the symposium by (1) providing a summary and overview of Chemical Abstracts Service (CAS) processing technology with particular emphasis on the data base concept as CAS is applying it; (2) defining current CAS information products, relating them to each other and to the data base; and (3) outlining trends for the future, as we now see them, particularly in terms of kinds of services that users might expect from CAS. Further information on the current CAS production system and the kinds of services available may be obtained by consulting "CAS Today. Facts and Figures about Chemical Abstracts Service."[1]

† Presented in the symposium "User Reactions to CAS Data and Bibliographic Files," 169th National Meeting of the American Chemical Society, Philadelphia, Pa., April 7, 1975. The development of many techniques and applications described in this paper were partially supported by the National Science Foundation under Contract NSF-C656, as well as earlier contracts and grants. Chemical Abstracts Service, a division of the American Chemical Society, gratefully acknowledges this support.

COMPUTERIZATION OF CAS

Figure 1, which was created for the 1969 CAS Open Forum in New York,[2] describes the concept of the computerization of CAS as we saw it at that time. The left part of the figure, 1966, is the precomputer system; the right part, 1974–78, is the "ultimate system." The box at the left end of the wiggly line represents receipt of a source document; the box at the other end of the line is the publication of indexed abstracts. The diamonds on the line are processes that must be performed. The stars, which represent transcription, proofreading, and correction steps, are shown with loops because the information does not move forward in these processes; it is simply cleaned up so that it can move forward. An operations analysis which we conducted in the early 1960's described approximately 35 separate steps through which a typical source document was processed between its receipt at CAS and its final indexing.