

Publication Problems

There has been a sequence of committees concerned with publication. When the only publications of the Society were the *Bulletin*, the *Transactions*, and the Colloquium Publications, editors were themselves closely concerned with printing contracts and other questions of publication along with the Trustees. There was a Committee on Printing Contracts that was reconstituted in 1942 and then consisted of Tomlinson Fort, chairman, Mark H. Ingraham, and J. D. Tamarkin. It acted on consultation with editorial committees on all printing and made recommendations to the Trustees directly. R. M. Foster replaced Fort in 1944 and became chairman.

At its meeting of 23 November 1945 the Council approved a recommendation of the Committee:

That the Office Manager of the Society be authorized to conduct in cooperation with the committee on Printing Contracts a thorough investigation of the possibilities of various alternative methods to conventional printing from type,—in particular, the photo-offset reproduction of specially prepared type-written copy.

The Colloquium Publication *Lectures on Matrices* of J. M. Wedderburn had already been reprinted in 1944 by photo-offset by Edwards Brothers. It was the use of type-written copy that required investigation.

In December 1946, the Committee on Printing Contracts reported that initial investigation showed that the cost of the *Bulletin* produced in the proposed manner would be slightly higher and that of the *Transactions* was at most negligibly lower.

In April 1949 a Committee to Study Special Methods of Reproducing Mathematical Research was appointed, consisting of B. P. Gill, chairman, S. Eilenberg, and P. A. Smith. The newly proposed *Memoirs* were the vehicle proposed for the experiment.

The executive director, in place since the end of 1949, was made an ex officio member of the Committee on Printing Contracts.

There were other ad hoc committees on the general problems of publication associated with the substantial increase after WWII of both the amount of material offered for publication and the cost of publishing it. One was a Committee to Study the Problems of Publication, consisting of A. W. Tucker, chairman, E. Hille, J. R. Kline, and P. A. Smith. At the Council of 27 December 1951, it recommended among other things “[t]hat various present committees on non-editorial matters be consolidated in a single Publications committee consisting of three members elected for three year terms in rotation.” The Council approved and the preparation of a change in the bylaws was authorized.

COMMITTEE ON PRINTING AND PUBLISHING

The Committee on Printing and Publishing was formally approved in September 1952 and in December the various ad hoc committees and the Committee on Printing Contracts were discharged.

The Committee on Printing and Publishing were members of the Council. They were the following:

M. Hestenes	1/53-12/54
J. R. Kline	1/53-7/55
C. J. Rees	1/53-12/56
E. F. Beckenbach	1/55-12/60
A. W. Tucker	8/55-12/61
E. G. Begle	1/57-12/62
G. A. Hedlund	1/61-12/66
J. D. Swift	1/52-12/67
C. W. Curtis	1/62-12/68
G. Seligman	1/67-12/69
L. Auslander	1/68-12/70
F. E. Browder	1/69-12/71

Publication processes grew more complex. Operations, particularly composition, were increasingly done in-house as techniques and equipment were developed. The staff took on a larger share of the work and management of publication. For example, in 1955 the Council voted that printing contracts should be made by the executive director on the basis of policy laid down by the Committee on Printing and Publishing.

The committee did concern itself with subventions to outside journals and with the problem of assuming publication or editorial control of *Mathematics of Computation*. Both of these issues are detailed elsewhere. Problems connected with page charges went to the committee also.

COMMITTEE TO MONITOR PROBLEMS IN COMMUNICATION

An ad hoc Committee on Information Exchange and Publication in Mathematics, consisting of D. Zelinsky, chairman, P. R. Halmos, Albert Madansky, Alex Rosenberg, J. Barkley Rosser, J. D. Swift, J. F. Traub, and A. S. Wightman, and made its final report to the Council of 23 January 1967. It was concerned with a variety of matters such as preprint exchanges, publication by abstract with available filed manuscript, problems of information retrieval, communication with other disciplines, expository books, and conferences, some of which were to be objects of future attention.

One of its recommendations, adopted by the Council, was to establish the Committee to Monitor Problems in Communication with the charge

that this Committee should experiment with pilot projects with (hopefully) improved methods of communication if such projects are approved by the Society and other organizations concerned, and that the results of these experiments be carefully assessed after a suitable trial period.

The committee was established in 1967. When its chairman was about to be given Council membership, the secretary observed considerable overlap between its charge and that of the Committee on Printing and Publishing. On his suggestion, the Council of 27 August 1968 agreed to phase out the latter committee.

The initial membership of the committee was W. J. LeVeque, chairman, F. Browder, I. Niven, A. Rosenberg, and D. Zelinsky. J. Douglas, Jr., and G. L. Walker were soon added.

Comm.-Comm., as it is universally known, has considered a diversity of products of conceivable benefit to the mathematical research community, a few of which are mentioned here.

The first recommendation of the committee was to recommend a Conference on Communication Problems to take place as the new headquarters was dedicated. It was here K. Chandrasekharan proposed the idea of a current awareness journal. The Committee to Monitor Problems in Communication picked up on the suggestion, which went through the formal route of approval. The journal appeared in 1969 under the title *Contents of Contemporary Mathematical Journals*; it consisted simply of photoreproductions of the tables of contents of current issues of many of the major journals in

mathematics and was very inexpensive. The format was changed by sorting the articles from various journals by subject according to the AMS(MOS) subject classification, described below, when that was in place. The title was subsequently changed to *Current Mathematical Publications*. The journal had a separate editorial committee until 1977, when the task was assigned to the Editorial Committee of *Mathematical Reviews*. It is prepared from incoming information at *Mathematical Reviews* and is incorporated into the mechanized process in such fashion that bibliographic information need be entered only once for both journals.

One of the most innovative projects which the AMS undertook in the 1960s, on recommendation from Comm.-Comm. to the Council of 29 August 1967, was the Mathematical Offprint Service (MOS), developed under a grant from the NSF. MOS began operation in 1968 and was a subscriber-based information retrieval service for the mathematical community. MOS was one of the first attempts to provide selective dissemination of information in a scientific discipline. It was modeled after an internal system at Bell Telephone Laboratories and was very successful with the portion of the community which it served. This account of MOS was prepared by William B. Woolf.

MOS subscribers filled out detailed "profiles" of their interests to be matched against descriptions of articles from more than 200 worldwide journals. In most cases, the journals provided the AMS with advanced proofs of articles they were about to publish, adding a very current aspect to the information MOS was providing. Full bibliographic information about each article was added to a computer database of information to be compared regularly by computer with subscriber profiles. Based on the degree of match, subscribers might be sent actual copies of articles, or author-supplied abstracts, or bibliographic listings.

The cost to subscribers was unbelievably low! Initially an offprint cost \$.30, regardless of its length, and a title listing cost \$.03. Over time, the prices were increased somewhat but never enough to allow MOS to operate in a way that convinced the AMS and NSF that the project would become self-supporting.

When MOS lost NSF support in 1971, it was replaced by a multi-part system made up of a Mathematical Title Service (similar to MOS but with no offprints), *Index of Mathematical Papers* (a semi-annual publication containing an author index and a subject index to the papers processed by MTS) and an ever-growing data base of article information. This system was also NSF-supported.

During four years of operation, MOS (and MTS) popularity grew until it had a subscriber base of more than 1000 mathematicians. At the time it ceased operation, it was processing more than 800 articles a month.

One of the most long-lasting products of MOS was the AMS(MOS) Subject Classification Scheme (1970). When MOS began operation, subjects were designated by four-digit classification numbers taken from the current Subject Classification. However, a massive redesign of this subject classification was done during 1969/1970, resulting in the tri-level AMS(MOS) Subject Classification (1970). This was not only used by MOS and by AMS journals but was eventually adopted by *Mathematical Reviews* and was the basis for the classification which *MR* and AMS primary journals presently use.

In retrospect, MOS could be judged to have been ahead of its time. Over the years, the need that MOS fulfilled has been met by a host of other services tailored somewhat to meet individual needs. These include services such as MathSci, subscriptions to individual sections of *Mathematical Reviews*, and sales of article reprints by *MR*. The *Index of Mathematical Papers* eventually was replaced by *MR*'s own several indexes, by subject and author, covering varying periods of time.

The use of classification numbers with papers published in Society journals is required and has spread widely to other journals and to books. In the last, it is an aid to librarians.

Repeated offers to assist with a revision of the Dewey Decimal Classification of mathematics, universally recognized as ineffective and outdated for research mathematics, have been refused.

Following a recommendation from Comm.-Comm., in several fields reviews from *Mathematical Reviews* have been collected and in some cases reclassified in light of subsequent development and have been ordered to make it possible to follow a developing theory easily. The prototype is the two volume set titled *Reviews of Papers in Algebraic and Differential Topology, Topological Groups, and Homological Algebra* [1940–1967] edited by Norman E. Steenrod. The success of such a project depends on finding an editor who is eager to undertake the task in a popular field. The Steenrod volume contained more than 6000 reviews. A much larger project of the same kind, by far the largest in this area, is the one in number theory, consisting of 14426 reviews in six volumes titled *Reviews in Number Theory* [1940–1972], edited by William J. LeVeque, followed by 17119 reviews in six volumes titled *Reviews in Number Theory* 1973–83, edited by Richard K. Guy. Other fields covered to date are K-theory, ring theory, graph theory, finite groups, infinite groups, numerical analysis, partial differential equations, and global analysis. The degree of editing with respect to reclassification and ordering varies among collections.

The committee recommended in 1980 the employment of a staff writer in the Providence office. This was achieved in 1986, with substantial benefit in informing the mathematical community.

The committee was responsible for the 1983 Survey of American Journal Prices, which was the first in a series.

As the publication program of the Society increased and diversified, Comm.-Comm. was charged in August 1985 to be the editorial committee for books not in series.

Not all of the ideas in this direction have come from Comm.-Comm. There has been a Committee on the Publication Program responsible nominally to the Trustees that has made a variety of suggestions about books and collections that are in the process of preparation as this history is written.

The successive chairmen of Comm.-Comm., all but the first of whom were Council members, are the following:

W. J. Leveque	2/67-12/70
A. Rosenberg	1/71-12/74
Leonard Gillman	1/75-12/76
D. W. Bailey	1/77-12/78
G. B. Seligman	1/79-12/79
P. T. Church	1/80-12/80
R. G. Bartle	1/81-12/82
W. W. Comfort	1/83-12/83
Lynn A. Steen	1/84-12/84
M. B. Pour-El	1/85-

The issue of alternative methods of composition, such as the use of var-type already mentioned in connection with the inception of the *Memoirs*, came up repeatedly. The Society experimented with a diversity of equipment, introducing it wherever it could be done without encountering the preference of the members for what looked like cold type. As equipment improved this was increasingly possible. The versatility of T_EX has made its use possible for all purposes of composition and essentially all composition is now done in the Providence or Ann Arbor offices. The most elaborate such project was the computerization of the production of *Mathematical Reviews*, which is described in some detail in that chapter.