From the Executive Editor of MR

The Evolution of *Mathematical Reviews*: Where Now?

Next January *Mathematical Reviews* (MR) will be celebrating its sixtieth anniversary. A glance through the library shelves containing the volumes of MR since 1940 would appear to indicate that not much has changed over the years. There is still the familiar matte orange cover, the $9'' \times 12''$ trim size, and inside the same review format. Although of course there have been changes—for example, in classification schemes, in typography, and, most conspicuously, in sheer size (the 1999 volume of MR will contain 25 times as many reviews as the 1940 volume)—the essential editorial policy has remained the same. But this is only half the story.

As we are all aware, there have been dramatic changes in scholarly publishing over the last decade or so. To enumerate just some of those changes: (1) More and more journals are becoming available to subscribers in both paper and electronic Web-based versions. (2) New journals are often available only electronically. (3) Authors now routinely submit articles in publishable format so that the time lag between acceptance of an article and (electronic) publication can be essentially zero. (4) Scholars who used to circulate a limited number of paper preprints to colleagues now make their preprints freely available on preprint servers. (5) Moreover, published material may include one or more new formats: CD-ROM, videocassette,….

MR has been among the first to take advantage of the new technologies. In the early 1980s MR was made available (as MathSci) through a number of online vendors, and since the late 1980s the data has been available in CD-ROM format as MathSci Disc. Finally, in 1996, MathSciNet was launched on the Web; it is now, for many users, the format of choice for access to MR data. Soon MathSciNet will contain the complete archive of reviews in MR, in TeX format, from 1940 to the present.

The ready availability of so much data on MathSciNet, together with tools for complex searching and multiple links both within MathSciNet (e.g., forward and backward citations, lists of all papers by a given author, tables of contents of journal issues) and to outside sites (e.g., original articles), has revolutionized the way MR data is used.

It is time now to step back and ask what if any editorial changes might be desirable in the new environment. What more might we provide editorially to the underlying database to take advantage of the Web tools and thus enhance its value? Are evaluative reviews even more important as the literature grows and it becomes increasingly difficult for an individual to look at all relevant original articles? Or, as more and more abstracts become freely available, is it more important to use our resources to expand the scope of the database and list more items? Should reviewers be encouraged to add more relevant references to reviews and/or should reference lists from the original articles be captured? Would the addition of survey articles to show how a field has developed or show how fields interconnect (in each case liberally sprinkled with references) greatly enhance the value of the MR database? We need your help to suggest and advise on ways we can improve the service MR provides, and so in 1999 we are conducting a survey of users to find out how they are accessing and using MR data and the directions in which they would like the editorial policy to move.

With crucial contributions from reviewers from around the world, the work of MR's own dedicated staff, and valuable input from users, MR expects to maintain and improve its database in the years to come. The goal, however, will remain unchanged: to provide a high-quality database that gives comprehensive coverage of mathematical research and serves as a focal point for all mathematicians as they navigate the mathematical literature.

—Jane E. Kister