M and Education

by Richard F. Walters

Richard F. Walters

In simplest terms, computers can contribute to the educational process in two ways. One is to learn how computers work, and the other is to use computers to teach other subjects. Such was the common folklore of a few years ago, and it seemed sufficient then to classify computer uses in education.

Now, however, not only are computers used in more and more facets of education, but people also need to learn not just how computers work, but also how to make broad, effective use of a wide range of computer applications. Spreadsheets, word processors, database packages, and many other specific application packages require special training. The pervasive influence of computers in all activities seems to require not only knowledge of "how to" for individual applications, but also some fundamentals of how computers work and even how programmers instruct them to perform new tasks.

Within the M world, there is an urgency to offer wider training in M, and we find yet another serious need to learn about the new features of the language. A form of continuing education takes on a new sense of importance. Furthermore, as the language evolves, knowledgeable M users can play an important role in pointing out continued directions for future evolution.

In planning this issue of *M Computing* devoted to computers in education, we could cover one or more of the following topics: teaching about how computers work; teaching about M; teaching about new directions for M's evolution; expanding the pool of M enthusiasts by outreach programs; training/retraining M programmers; teaching applications (especially those written in M); developing effective computer-based teaching and writing tools; and probably many others that I have not included here.

Fortunately, this issue addresses much in the educational world, with several complementary articles that should expand the horizons of most readers. We decided to incorporate some practical advice on training, computer-based instruction, and teaching specifically about M. We also included an article on how using M in an introductory computer science course has the potential to reach a large student population that would otherwise not be aware of M at all.

The variety points out once again that M can serve the world in many ways. Its ability to solve programming problems simply and efficiently, to serve as an effective instructional tool, and its versatility to meet new needs, all speak well for the continued growth and expansion of M in the years ahead. Since other facets of M in education do not appear here, we would welcome updates on its use in clinical simulations, expert systems, language learning, and other educational settings.

As I reflect on the articles' and columns' quality and diversity, and the number of "first timers" who have contributed to the journal during my first year as executive editor, I have a real sense of gratitude for the hard work of many authors who contributed to the 1993 and 1994 issues so far. I extend my sincere thanks to the many new authors, too. Many of you have given your time and energy to make suggestions for articles, and then follow up with manuscripts, for which we (editors, Editorial Board, Review Board, and the entire M community) are extremely grateful.

At the same time, I plea for more of you to share your experiences with us. Finding people-willing to write in these pages is an enjoyable, important part of my job. But I do recognize that I cannot tap all the resources; while I know many readers through annual meetings and countless other M-related activities, there are many more people out there whom I either do not know or do not know their stories.

This journal belongs to you, the readers. You owe it to yourselves and to M Technology to consider ways in which you can contribute, perhaps by writing for the journal. We especially need more articles describing commercial uses of M in many domains.

The writing process is easier than you might first believe. We have an excellent and very helpful managing editor in Marsha Ogden; she can work wonders with authors to get the most out of their ideas and material. Our reviewers have wide expertise and often offer substant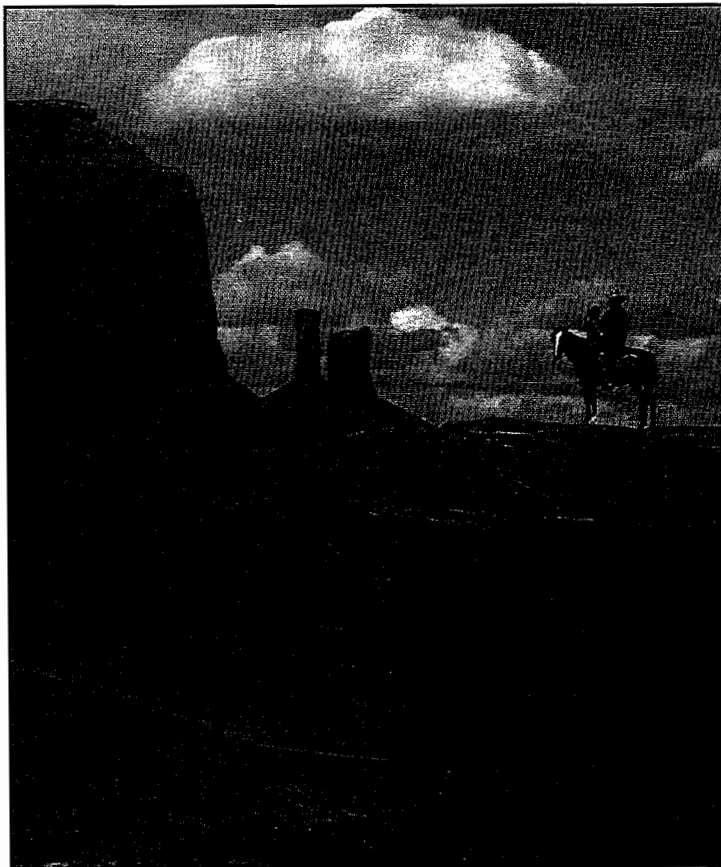ial, helpful suggestions to further improve articles. The *M Computing* staff is willing and eager to bring out the best and help authors attain visibility through quality articles that enhance the journal.

As you read this and previous issues of *M Computing*, ask yourself if the breadth of material doesn't suggest that some of your own work might interest others. Please contact us so that we can discuss the possibilities of turning your thoughts into memorable contributions to this, your journal. As always, we welcome feedback and specific suggestions of how your own efforts could expand our current coverage.

Dick Walters has been the executive editor of the journal since January 1993. He also is professor of computer science at the University of California at Davis. Write to him in care of *M Computing*.