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# Editorial

The rapid evolution of computer-aided methods in analytical chemistry is transforming not only the technology used for generating analytical data, but also the repertoire of digital techniques for evaluating the data sets themselves. The mainframe computer capability of yesterday is accessible via the laboratory microcomputer of today, as discussed by Professor T.C. O'Haver in his first issue report in this Journal. The impact of this fast-running stream of digital developments is no less significant in the field of laboratory and institutional management, where decisions involving large databases can be taken with facile speed, using inexpensive microcomputers and readily available software.

With these developments in mind, the Editorial team decided from the beginning to establish the routine management of the *Journal of Pharmaceutical and Biomedical Analysis* on a database system run on a microcomputer. Software has now been developed uniquely for swift and accurate collation of all the parameters involved in handling manuscripts in the specialized context of scientific publishing. For example, one of the systems developed gives instant access to the referee database, for rapid comparison of the key descriptors of a manuscript with the archived profile of interests and expertise for each member of the International Panel of Referees and of the Editorial Advisory Board. Another database system has been designed to monitor the progress of each manuscript through the publication process. All manuscripts are indexed on receipt to generate a database which can be interrogated to monitor a number of factors, such as the response-time of Authors and Referees; this is a key element in developing an effective dialogue between Authors and Referees. All the Referees have been invited on the basis of their international experience as active authors. Since Referees are inevitably busy people, the selection system ensures that manuscripts are allocated evenly throughout the international referee network, which incidentally extends from Northern Canada to Japan. A logical extension of this computer-aided editorial management system will collate manuscript data with personalized letters, using a word-processor package and a letter-quality printer. In fact, the Journal itself is typeset by a microcomputer-based typographic system with floppy disc memory storage. Thus the fully-computerized journal, supported by a computerized secretariat (and computerized Editors?), will soon be a permanent feature of the publishing scene.

Electronic publishing, however, is still in the development phase. In years to come, a 'manuscript' submitted on a specially-formatted floppy disk will be processed and eventually published as a digital record in the publication archive, immediately accessible on-line to scientists world-wide. Although the speed and relatively low cost of electronic publishing will be attractive both to scientist and publisher alike, even more attractive will be the ease of conducting selective searches of the current literature, traditionally a tedious and time-consuming exercise. Whether the library time saved would, in fact, encourage the scientist to do more research and generate even more digital publications,

is a matter for speculation. It is clear, however, that computer-aided library search methods will be an essential tool in helping the scientist combat the information explosion, and nowhere more so than in the life sciences.

It is a matter for conjecture whether conventional hard-copy journals will continue to be available in the library of the future. Although microform publishing has not lived up to expectations, electronic publishing will almost certainly revolutionize the way scientists approach the literature. The prospect of an individual gaining multiple access on-line to the major publishing houses, and to centralized international databases, is simply an extension of the *status quo* in libraries today. Moreover, hard-copy reprints would be available on demand, using fast printer-plotters with high-resolution colour graphics directly in the research laboratory. Perhaps under these circumstances publishers would be paid by results as interested readers logged on to their system, while pot-boiling authors would face the prospect of being consigned to digital oblivion. Whatever the outcome of contemporary developments in electronic publishing, it seems likely that for some time to come, hard-copy journals will continue to play a vital role in the development of scientific ideas at the interdisciplinary interface between the various biomedical sciences.

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