The Society for Computer Applications in Radiology

Dozens of clues indicate that interest in picture archiving and communication systems (PACS) and teleradiology has blossomed in recent years, but convincing data on the size and growth of this market have been difficult to obtain. Part of the reason is that the number of companies participating in this market—some 200—is so large that tracking sales is virtually impossible. Furthermore, deciding what to count is a vexing problem, making it difficult to compare estimates from different analysts or epochs.

Nonetheless, an intriguing article in the last issue of the *Journal of Digital Imaging* (August 1996) by Roger Bauman, Guenther Gell, and Samuel Dwyer sheds some light on at least one aspect of PACS, namely, the worldwide growth of large-scale PACS, that is, systems in daily clinical use, embracing at least three modalities, terminals both inside and outside the radiology department, and handling at least 20,000 examinations per year. Such systems grew from 13 systems in operation in 1993 to 23 in early 1995, almost doubling over 15 months. One can speculate that a survey currently under way will find another doubling in a similar period—exponential growth, typical of the early stages of new businesses.

In the United States, where 13 of the 23 systems are located, an important reason for growth is the revolution in American medicine wrought by the advent of managed care, which has galvanized interest in systems that hold promise for reducing costs. Equally important have been the increasing capabilities of small computers, the stunning capacities of modern storage devices, the plethora of networking components, and the introduction and acceptance of DICOM, all of which make it easier and less expensive for companies or in-house developers to construct PACS.

A surprising finding of the study was that for 17 of the 23 systems, at least primary interpretation directly from the PACS was used for at least some studies. This is an encouraging development because analysts have known for a long time that PACS are difficult to justify economically without primary interpretation because in this mode one incurs all the costs of a film-based

system with the additional costs of the PACS-based system. There are numerous concerns about primary reading from PACS, ranging from technical limitations of digitizers and displays to fears of malpractice. These concerns are not groundless, but neither are they entirely realistic, given the multitude of other factors that degrade medical images without exciting fear. The field needs the experience of these pioneers to make primary interpretation at a workstation an accepted practice.

As these developments indicate, worldwide interest in PACS is on this rise. Continued growth will depend on having more information about practical experience with these systems and information about the costs and savings associated with them. These are among the matters dealt with frequently in this journal and in SCAR meetings and publications, making membership in SCAR more important than ever for radiologists and others concerned with PACS.

SCAR membership has been growing steadily in the last year, now surpassing 500 individual members and nine corporate members. For the current fiscal year—through June 1997—membership fees for individuals, both in the US and abroad, have been reduced to \$93. Members receive free subscriptions to the *Journal of Digital Imaging* and to the *SCAR Newsletter* as well as reduced fees for SCAR meetings. Membership is open to anyone with an interest in computer applications in radiology. Further information is available from the SCAR office, 1891 Preston White Drive, Reston, VA 22091; tel: 703-716-7548; fax: 703-648-9176.

The next SCAR technical meeting will be SCAR 97 at the Mayo Clinic, June 22-25, 1997. The next business meeting will be during RSNA in Chicago. Also of interest are SPIE's Medical Imaging 1997 to be held in Newport Beach, February 22-28, and CAR 97 to be held in Berlin, June 25-28, 1997.

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