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Editorial: An Update on the SCAR TRIP™ Initiative

TRANSFORMING the Radiological Interpretation Process (TRIP™) is an initiative of the Society of Computer Applications in Radiology to spearhead research, education, and discovery of innovative solutions to the problem of information and image data overload. Burgeoning medical image data sets acquired by digital imaging devices requires the radiological community to shift its image interpretation and management process. The SCAR TRIP™ Initiative will foster interdisciplinary research on technology as well as environmental and human factors to better manage and exploit the massive amount of information available.

The SCAR TRIP™ Initiative will focus on the following fundamental objectives:

1. Improving efficiency of interpretation of large data sets
2. Improving the timeliness and effectiveness of communication
3. Decreasing medical errors

The ultimate goal of the initiative is to improve the quality and safety of patient care. This presentation will review the current status and development of the initiative.

DEVELOPMENT OF THE SCAR TRIP™ INITIATIVE

The SCAR TRIP™ Initiative began during the SCAR Research and Development Committee Retreat on 12 July 2002. As a result of most interesting discussions the previous evening, members examined the expanding problem of the number of images per patient and the number of patients per day in typical electronic radiology practices. The discussions revealed a strong sense that a paradigm shift in the radiologic interpretation process was necessary. During the retreat, a subcommittee of the SCAR Research and Development Committee was formed (the Medical Image Interpretation Paradigm Shift Subcommittee) to examine this issue and provide a forum for discussion and organizational infrastructure to seek solutions to this impending crisis. At the meeting, the following steps were planned:

1. The Medical Image Interpretation Paradigm Shift Subcommittee would review the current literature regarding image interpretation, workflow, workstation design, and alternative image interpretation methodologies.
2. A closing session was to be planned for the SCAR 2003 Meeting dealing with the collision between the interpreting radiologists and the vast amount of data presented for interpretation.
3. Discussions would be pursued regarding sponsorship of a conference or workshop to address these issues.

These issues were next addressed at the SCAR Strategic Planning Retreat held in January 2003. The problem of the radiologic interpretation process and very large image data sets and workflow were reviewed, and progress of the current subcommittee was discussed. During this meeting it was felt that it would be important to correctly describe the initiative

developed by the SCAR leadership. As a result, the current activities were designated the SCAR TRIP™ Initiative. TRIP™ is an acronym for Transforming the Radiological Interpretation Process. Before the close of the January 2003 retreat, the three items above previously discussed were reviewed and plans were made for future activities.

UPDATE

The SCAR 2003 Closing Session sponsored by the SCAR TRIP™ Subcommittee, Medical Image Interpretation: The Collision Between Humans and Data, was well received. Speakers from the Hollywood Film Industry, the National Imagery and Mapping Agency, and NASA were found to be most interesting and provided insight into similar problems in their arenas.

At present a SCAR White Paper summarizing past literature in these areas of image interpretation is in preparation and is anticipated for release in 2003. A conference and workshop with participation by government, vendor, and academic groups is in preparation for 2004.

To highlight the current problems in interpretation and impending information crisis, SCAR will join with the Radiological Society of North America (RSNA) infoRad efforts regarding image interpretation and workflow at the 2003 Annual Meeting of the RSNA. In addition, SCAR leadership is in the process of discussing possible grant support in conjunction with the SCAR TRIP™ Initiative.

It is the fundamental belief of the SCAR leadership that the current situation provides not only a problematic challenge but a wonderful opportunity to change the radiologic interpretation process, improving both the quality of patient care and the efficiency of future radiologists and their electronic practice.

Richard L. Morin, PhD
Chair
SCAR TRIP™ Initiative Subcommittee
Brooks-Hollern Professor,
Dept. of Diagnostic Radiology
Mayo Clinic Jacksonville
4500 San Pablo Rd
Jacksonville, FL 32224, USA

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