Human-Centered, Interdisciplinary Design & Evaluation of Biomedical Imaging Systems

Dr. Anne R. Haake

Biomedical images are ever increasing in quantity and importance for use in research, teaching and clinical practice. While image databases hold great promise, there is risk of overload. Without the ability to effectively and efficiently organize, retrieve and use images, we can quickly reach the point of negative return. Although content experts with years of experience may be able to make use of expanded databases and imaging systems, the performance of less experienced users may actually be hurt by the addition of more images. Current solutions, such as content-based image retrieval (CBIR), have not yet achieved practical use particularly in specialized domains because of several unmet challenges including the need to retrieve semantically relevant images and the design of usable interfaces. Understanding the capabilities of the human visual system with respect to image understanding and utilizing knowledge of domain experts will help us to address these challenges. In our research we use innovative, multidisciplinary approaches to extract expert perceptual and conceptual domain knowledge and understand diagnostic processes in support of the design and evaluation of image-based informatics systems.

4pm, Wednesday, May 5, 2010

Carlson Auditorium
Center for Imaging Science, Bldg. 76

www.cis.rit.edu/seminar
for up-to-date seminar schedule, video archives, and abstracts

R·I·T

College of Science