

Web-Based Instruction: A Showcase
2000 CGEA Computers in Medical Education SIG
Symposium
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With the increasing use of the web as a means for delivering high quality instruction, the time is right for a showcase of recent faculty efforts in the area of web-based computer assisted instruction (Web CAI). This symposium focuses on the efforts of four WebCAI innovators. They range for the simple yet elegant and effective, to the more "flashy" (still elegant and effective), representing a variety of basic science and clinical content areas. It is hoped that attendees will take away ideas for their own development work in this exciting new area of instructional delivery.

Our presenters are:

1. Ms. Anita Miller, University of Illinois College of Medicine at Rockford
Title: [On-line Neurology Course](#)

Description: This on-line course was developed to provide the 4th year Rural Medical Education students on our campus an opportunity to complete their required senior neurology clerkship. These RMED students are required to spend four months of their senior year off-campus doing a rural preceptorship under the supervision of a practicing rural family physician. Because of this they have trouble fitting Neurology into their studies. To solve this problem a unique distance-education neurology course consisting of a focused tutorial on the neurological physical exam plus sixteen www-accessible case studies whose medical content is identical to the paper cases used in the traditional clerkship was developed. It has proven to be an effective vehicle to support mastery of a defined set of learning objectives in neurology.

2. Dr. Iverson Bell, Morehouse School of Medicine
Title: Case Based Learning in Psychiatry
Intranet and CD-ROM

Description: A computer software program is being developed that allows students to use a school or remote computer to assess their knowledge of Psychiatry via case studies and interactive questions. Texts and other reference material for this adjunct will be the

same as used in the classroom. Students may work in groups to negotiate through the case studies and may work independently. Each group studies the on line psychiatric cases and be prompted to answer questions regarding the specific diagnosis and treatment. The questions are interactive and prompt them to answer more questions or direct the students to reference material. Successful completion of each case's questions will be necessary to progress to the next case. The student groups are able to take a series of one to two case tests and get immediate feedback based on their answers. The student groups can then choose to either submit the passing score for each test and move to the next, or retake the test for better understanding. The ability to take, retake and research the questions immediately should facilitate learning. The design of the case scenarios allows for a multidisciplinary view of the patient. This project is 'intranet' and cd-rom based. It is simple enough to use on the web, but video vignettes are an integral part, and that would slow down internet use.

3. Dr. Richard Mintel, University of Illinois College of Medicine at Urbana-Champaign

Title: [Internet Atlas of Histology](#)

Description: This is a Web-based program designed to augment instruction in cell and tissue biology for first-year medical students, and others taking histology courses. The Atlas holds over 1400 high-resolution digital images. Students use the Atlas much as they would use microscopes in a traditional laboratory setting. They are presented with a list of slides and thumbnail views of the slides. When they select a slide to examine, they are taken to a low-magnification view of the entire specimen, with rectangles bounding those areas containing higher-magnification views. Clicking within such a rectangle begins one's journey down one of many paths in the Atlas. A convenient navigation tool or identifying all objects within an image is provided in the form of drop-down list. Selecting an object name from the list causes that object to be highlighted with a colored overlay, and the object name to be pronounced correctly over loudspeakers. A mouse click then causes a window to pop up with a succinct description of the object. A mouse-over option allows one to search for objects: when the pointer is over a given object the previously described events occur. There is powerful search mode for objects, slides, and descriptions. Also included are guided laboratory exercises for each major area of histology and self-test quizzes.

4. Mr. Christopher Chapman, University of Michigan Medical School

Title: [Miniseries on Applied Electrocardiography](#)

Description: This tutorial is an interactive, problem-based introduction to basic Electrocardiography. In each case the ECG is placed in an authentic clinical setting and correlated with an actual medical problem. This series is NOT an attempt to make the learner a detailed "interpreter" of ECG, but rather, a better "user and applier" of electrocardiographic information. This program strives to make the learner a more competent and informed user of the ECG in the clinical setting. Currently we have 4 cases available in the "Syncope, Pre-Syncope and the Dizzy-Woozies" section. Cases are assigned to 3rd year medical students on their Internal Medicine rotation. Each case takes approximately 20 minutes to complete.