The anatomy of the Dynamic Patient Simulator

PRE- WORKSHOP Slice of life 2002

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Lecture/Demo Half Day. Open to anyone. No special skills required.

ABSTRACT:
The Dynamic Patient Simulator (DPS) is a computer program for creating patient simulations. The software gives students the opportunity to perform all normal medical procedures such as medical history taking, physical examination, and lab tests. The engine of DPS simulates the state of the patient in time. The state is translated into medical symptoms, expressed by the virtual patient. Because of the dynamic nature of DPS, these symptoms can deteriorate in time, or disappear after correct treatment by the student. The student must be aware of the time delay of the requested lab tests and therapies while running a simulation.
DPS can be used for all kinds of clinical simulations, such as emergency situations (taking less than a half-hour), up to simulations extending over several years.
DPS is built on a database. The state of the patient at any time and all actions performed by the student, are logged into this database. This enables DPS to comment on all actions of the student and to give personal feedback and a final score at the end of a simulation. DPS is also equipped with a dynamic help system. This system can be triggered by a certain elapsed time since the beginning of the simulation, a (critical) state of the patient, or by the student's request. The assistance offered by this help system is based on the actual state of the patient at a specific moment and the actions already performed by the student. This system makes DPS to a large extent independent of a teacher.
Of course DPS supports all kinds of multimedia, such as pictures, movies and sounds. In addition to these multimedia aspects, DPS integrates the Microsoft Internet Explorer® in its interface. This enables direct links in the program to all kinds of other information, such as tutorials, literature references and web-based programs.
The pre-workshop offers an opportunity to show all aspects and possibilities of the Dynamic Patient Simulator. By demonstrating different kinds of clinical simulations with interaction from the audience, the dynamic character of DPS can be fully exhibited.

BENEFIT TO PARTICIPANTS ATTENDING SESSION:
The Dynamic Patient Simulator is a non-commercial computer program for developing patient simulations. It is used in most medical faculties in the Netherlands and in some medical faculties in Belgium as major authoring package for creating patient simulations. Medical CBT developers can acquire a license for DPS for free, provided that cases created in DPS are to be shared with the DPS community on a non-commercial basis.
The DPS engine is in English. Most simulations developed so far are in Dutch. For the pre-workshop some cases will be translated into English.
Creating a simulation in DPS requires experience with the program, as well as knowledge of databases and web development. The pre-workshop is not meant to be a full course in learning DPS. For the CBT developers at the Dutch and Belgian medical faculties a short course (3-5 days) in Dutch was given to teach the basics of DPS.
The possibility of developing a training course in English with distribution and support over the Internet is currently being investigated. The workshop should appeal to those interested in simulations and wishing to see if the progress made to produce this simulators can be used in English-based medical schools.