

## **Section: E-Learning und Simulation**

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### **Abstract-Title:**

TEACHING AND LEARNING WITH E-LEARNING USING A WEB-BASED CONTENT-MANAGEMENT-SYSTEM IN LECTURE

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### **Abstract-Text:**

**Purpose:**

Today it is a standard practice to put material of lectures into the web because this enables students to examine thoroughly the content at home. Often the students can download Powerpoint-slides or a special lecture note from the intranet of the university. Another way is to make a movie of the lecture and post this lecture-movie on the Internet. In the Hannover Medical School we realized a third way. Our goal was to use just a one in all web-based content resource for the lecture and for the work at home. In autumn 2005 we created an e-learning application for the lecture of Trauma Surgery which could be used by the teacher in his lecture to present the subject matter. Furthermore it could be used by the students at home.

**Methods:**

We used the web-based content management system Schoolbook to realise this e-learning application. The Schoolbook enables authors to present their specialised knowledge within the World Wide Web without the needs to be familiar with Internet technologies. It was developed at the Institute of Medical Informatics at the Hannover Medical School. The entire system is realised on a Linux system with the Apache web server, the programming language PHP and the database MySQL. These components realise a LAMP environment (LAMP: Linux, Apache, MySQL and PHP). Through a web browser the PHP application allows to read content from the database and enables authors to insert their content.

The content in the Trauma Surgery Schoolbook is hierarchically ordered and supplemented with additional text that improves the students learning with the content. In the lecture the teacher can choose the content he wants to present.

**Results:**

Since October 2005 the Trauma Surgery Schoolbook is used in the lecture of Trauma Surgery and we have evaluated the academic year 2005/06. The results of the evaluation show us that the students are very interested in using this e-learning application. Most of the student have fast Internet access at home and can use the schoolbook without any problems. The possibility to reinforce the learning material at home is a good chance for the students but the attendance at the lecture is not less important for them.

In the first time it was a little bit difficult for the teacher to navigate through the content and not to go linear from one site to the next site. But only after a short time the teacher uses more the possibilities to choose the content in a free way, which allows a more individual lecture.

#### Conclusions:

Our experiences of the last academic year show that it is a good way to use one web-based content resource for teaching and learning in the context of a lecture. The web is an easy way to share content between teacher and the students. The content can be updated and supplemented by the teachers at any time and the students can learn and use the material at any time. In the lecture the teacher can talk to the students about special problems and discuss some details. The base of all is always the web-based e-learning application.