

AbstractID: 7241 Title: Incorporating Open Standards into Online Medical Physics Education

Purpose: Graduate students, residents, and allied health professionals rely on medical physicists to help them learn about medical physics, and online learning is increasingly being used to supplement or replace traditional didactic education. Free and Open Source Software (FOSS) versions of course management and authoring software are available for creating and managing media for online courses. These software packages can be easier to use in the long run because they tend to be more standards compliant, which makes maintenance of the content more manageable.

Methods and Materials: FOSS course management software was implemented to supplement a yearly physics course offered to residents. Management of the system was relatively easy, and incorporating materials from a variety of sources was relatively straightforward. Additions and updates are immediately reflected in the online course, and features in the software allow the residents to take an active role in their own education.

Results: Initially, the online content mirrored the handout binder given to the new residents, and residents adapted very quickly to using the new system. Residents appreciated the almost immediate feedback provided by computer-graded quizzes, and the course faculty were able to generate reports showing questions that were either more difficult or not covered very well in the lectures. These reports provided the basis for review sessions that were interspersed with the lectures. In the short term, it placed an increased burden on faculty to move materials online, but modifying them is currently somewhat easier.

Conclusion: Learning to use FOSS tools to author and manage course materials is one way to create an enhanced learning environment, benefiting both learners and teachers. As we learn to take advantage of more of the features of the software, the learning environment can be enhanced even further and can be applied to more than just resident education.