The Challenges of instructional technology

by Sheila P. Englebardt, RN, PhD, CAN

Associate Editor, Administration

The age of computerized learning has arrived; people of all ages and in all industries use email and other electronic applications to learn and to communicate. "Young entrepreneurs and mid-career professionals are heading to the Web in droves to get practical skills that will help them stay ahead of the learning curve" (http://www.news.com/SpecialFeatures/0%2C5%2C8346%2C00.html?nd).

Faculty in universities across the United States (and in the rest of the world) are being encouraged - pressured - to use instructional technology in their courses. As technology evolves, the scope of applications expands and hardware becomes more readily accessible to increasing numbers of faculty, the pressure to use the technology will strengthen. In addition, the demographics of undergraduate and graduate nursing student have changed. More students are employed in full time positions, have one or more previous university degrees, live at some distance from university campuses and have complex family responsibilities. Distance education methods have important strategies for meeting the needs of these students; distance methods include on-line teaching and the use of the Internet.

In other words, because technology exists there is pressure to use it. An analogy is the capacity of the family automobile to move at 80-100 miles per hour. Reasonable people would never agree that because the speeds are possible we should use them to drive to work or school. The dangers implicit in using inappropriate speed on our streets and highways are obvious. I suggest that similar caution must be used when considering the wholesale use of instructional technology in university education. Use of technology for technology's sake or to be the "first" to move a course on-line may be as dangerous to the learning experience of students as unsafe speeds on the highway.

Each electronic application serves a specific purpose and may or may not be appropriate to meet the instructional objectives for a particular course. Faculty, even those with exquisite computer skills and knowledge of various software applications, must attend to pedagogical issues before deciding to use instructional technology in their courses. Educators must identify learning objectives for a course, think critically about the reasons traditional educational methods are currently being used, and
evaluate the efficacy of the traditional methods before considering major changes involving instructional technology.

Instructional technology may include email, syllabi on-line, course and professional listservs, electronic discussion forums, newsgroups and WWW assignments. Each of these applications serves a different purpose. Email and listservs are best used for announcements and to share information; discussion forums allow interactive dialogue among students; newsgroups are similar to discussion forums but allow interactive discussion external to the course environment; and WWW assignments open up the world of the Internet as an information resource for students. All applications have merit - the decision about which to use for which course and in what ways must be dependent on the goals and objective of the course.

In other words, the challenge is for faculty to rapidly become knowledgeable about the scope and use of various technologies AND to critically determine the best use of technology for their courses always keeping in mind the end user - the student!